Laser Cutter Approved Materials

Purpose:
This document lists the approved materials for use with the laser cutter. Do NOT use materials on this list without express permission of responsible authority.

Approved Materials:
- Medium Density Fiberboard (MDF), thickness up to 0.25 inches
- Masonite, thickness up to 0.25 inches
- Foamcore, thickness up to 0.25 inches
- Acrylic, thickness up to 0.25 inches

Note that polycarbonate looks like acrylic but does not cut in the laser cutter. Be careful to ensure which kind you have. Polycarbonate will blister and bubble rather than cut, and sputter onto the lens.

Minimum and Nominal Cutting Speeds:
These speeds are listed as a guide for cutting, and most likely will need to be adjusted depending on the exact material thickness, composition, and time since the laser cutter has been recalibrated and cleaned. DO NOT attempt to cut material at less than the minimum speed. Cutting below the minimum speed is considered a violation of the SOP. If you cannot cut at the minimum speed, something is wrong (focus, calibration, cleaning, etc.) and the laser cutter needs attention from the staff.

<table>
<thead>
<tr>
<th>Material:</th>
<th>Minimum Speed</th>
<th>Nominal Speed</th>
<th>Power †</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDF – 0.25”</td>
<td>10</td>
<td>15</td>
<td>100</td>
<td>Cut with the white side up</td>
</tr>
<tr>
<td>Acrylic – 0.25”</td>
<td>10</td>
<td>14</td>
<td>100</td>
<td>Remove any protective film before cutting</td>
</tr>
<tr>
<td>Foamcore – 0.25”</td>
<td>80</td>
<td>100</td>
<td>100</td>
<td>Prone to catching fire, ensure settings are correct</td>
</tr>
</tbody>
</table>

† Power settings are automatically limited at the firmware level. Any power setting above the threshold is clipped to the threshold.